

METHOD OF PREPARING PREFORMS FOR RTM MOLDING PROCESSES

ABSTRACT OF THE INVENTION

The present invention provides for a method of manufacturing a preform for a RTM molding process that will increase both the handling capability of the preform and the final part quality. The invention consists of applying a patterned discontinuous layer of liquid resin over at least one side of a layer of reinforcing fibers. The resin film can consist of a homogeneous liquid, an aqueous dispersion or a melted resin applied at an elevated temperature. In one embodiment, there is present a roller having a patterned surface. Liquid resin is applied to the surface of the patterned roller via a second roller. The layer of reinforcing fibers is passed by the roller in such a fashion that the resin from the pattern on the surface of the roller is transferred to the layer of reinforcing fibers. The contact of the roller with the layer of reinforcing fibers is sufficient to force some of the resin into the fibers themselves. After the resin is applied, the layer of reinforcing fibers with resin is passed through an additional process to cause the resin to turn into a solid flexible coating. The layer of fiber is then wrapped onto a cardboard roll or similar type material and packaged for storage or shipment.